FMU 006 LSR/ FS/ Klamath

FMU Identifier: Late Successional Reserve/ Forest Service/ Klamath Mountains
FMU Number: 006
General Risk Category: High
Fire Behavior Indicator: Energy Release Component based on National Fire Danger Rating System (NDFRS[34]) Fuel Model G
NFDRS Weather Station: Pickett Butte
Acres: 6,174
Ecoregions: Level III - Klamath Mountains; Level IV - Umpqua Interior Foothills
Predominant Vegetation Type: Douglas-fir, Oregon white oak
Communities at Risk Within or Adjacent to this FMU: Tiller and Drew

FMU Characteristics

FMU 006 is characterized by lands designated as Late Successional Reserve. Refer to the Northwest Forest Plan (NWFP) for more information.

Strategic and Measurable Management Objectives

Strategic Objectives

- Human life, firefighter, and public safety are the highest priority and will drive all wildland fire and fuels treatment actions.
- Contain unwanted fires at the smallest possible size using appropriate suppression response.
- Minimize loss of late-successional habitat within the LSR to high intensity stand replacing fires.
- Create fuel breaks in priority two areas (Ref. 2003 Watershed Restoration Business Plan) to help protect existing old growth habitat.
- Increase the number of acres treated annually by prescribed fire and mechanical treatment to meet hazardous fuels reduction objectives.
- Work with cooperators during fire suppression activities.

Measurable Objectives

- Suppress all unwanted fires at less than ten acres 95 percent of the time.
- Implement fuel break treatments in Lower Elk Facial.
- Implement hazardous fuel reduction projects on 100 acres of condition class two federal lands, located within fire regimes I and III, that will provide enhanced protection of late seral habitat.
- Implement 100 acres of vegetation manipulation treatment in 10 to 20 year-old conifer plantations to move them towards a more fire resilient condition.

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[34] **Refer to Table 12, NFDRS and Fire Behavior Fuel Models Relationships**

Management Constraints Affecting Operational Implementation[35]

FMU 006 includes the following LRMP Management Areas (MA's) and the constraints specific to operational implementation. The following mitigation measures apply to all management areas:

- Live trees should not be cut unless it is determined that they will cause fire to spread across the fire line, or may present a hazard to workers.
- Include a qualified Resource Advisor as a position in the District initial attack organization. This person should be familiar with the area and its resource values, and have a thorough knowledge of the Standards and Guidelines of the Northwest Forest Plan.
- Wood should not be bucked or removed from stream channels.
- Locate incident bases, fire camps, helibases, staging areas and other facilities outside riparian areas.
- Initiate BAER Assessment on wildfires greater than 300 acres to protect life property or resources.

MA 10 Timber

- Appropriate suppression response will be used. Fire suppression is encouraged.
- Special precautions for recreation use need to be addressed in a WFSA.
- Minimize damage to riparian vegetation during wildfire and prescribed fire activities.
- Firelines should be constructed outside the riparian reserve.
- During slash disposal burning, protect riparian vegetation adjacent to streams.
- Minimize soil disturbance. Hand and machine fire lines should not be used to control fires within unique and mosaic habitat areas.
- Broadcast burning will be designed to prevent reduction in site productivity.
- Detection activities will be intensified during critical fire periods.
- Minimize delivery of chemical retardant, foam or additives to surface waters and riparian habitat.
- During wildfire and prescribed fire activities, minimize damage to vegetation within 100-acre LSR's.

MA 11 Big Game Winter Range

- All MA 10 constraints apply to MA11.
- Broadcast burning is the preferred slash disposal technique.

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[35] ***LRMP/ROD management area prescriptions, standards and guidelines***

Late Successional Reserve (LSR #R0223)

- Use existing roads and natural breaks for control lines.
- Locate base camps, spike camps, staging areas and helispots outside of riparian areas and outside of known locations of threatened and endanger species. Use existing campsites whenever possible.
- Avoid the use of heavy equipment in stream channels. Minimize equipment use within riparian areas.
- Use of burnout as a fire suppression tool is acceptable.
- Construct fire line only wide and deep enough to check fire spread.
- Locate and manage drafting sites to minimize adverse effects on riparian habitat and water quality.
- Rapidly extinguish smoldering coarse woody debris, snags and duff.
- Consider allowing trees and snags to burn out instead of falling them.
- Hardwoods, downed logs, rock outcrops, wetlands and riparian areas represent particularly rich areas for rare lichens and bryophytes. These features should be protected or enhanced as much as possible.
- Down wood and duff are important old-growth features for many fungi species including TES fungi. LSR management should encourage these.

Management Constraints Related to Wildland Fire Suppression and Fuels Treatment

- Before entering private land or affecting private facilities, and during suppression actions, work with private landowners to obtain permission to cross private land, cut fences or use privately owned facilities (i.e. ditches, water sources, etc.).
- Assign a qualified archeologist or resource specialist as a resource advisor to any wildland fires potentially or actually burning in areas with a high probability of heritage resource sites.
- Coordinate with resource specialist regarding management constraints for special status plants and animals, and for Minimum Impact Suppression Tactics (MIST) within late successional habitat.
- Initiate emergency consultation for listed Threatened or Endangered Species.

Management Constraints Specific to Wildland Fire Use

Wildland Fire Use is not a tool available for this planning unit, so will not be planned or implemented at this time.

Historic Fire Occurrence

The southwest Oregon area experiences moderate fire activity, mainly associated with lightning ignitions during the summer months. Detailed statistics regarding historic fire activity may be found in Appendix C.

Fire Management Situation

Weather patterns influencing fire behavior and historical weather analysis.

The historic lightning pattern tracks north from the Siskiyou Mountains.

Fire season determination.

Historical analysis has determined fires typically occur from early June through late October. Most fires occur in July, August and September, and are associated with lightning.

Fuels conditions likely to influence fire behavior.

The primary fuel type is closed canopy timber stands of short and long needle conifers or hardwoods. Slow burning ground fires with low flame heights are typical, with occasional flare-ups where heavy fuel concentrations are encountered.

The Douglas-fir, ponderosa pine and Oregon white oak plant association groups are at risk due to increased understory densities of shade tolerant species and an increase in mortality due to insect and disease infestation. Dead-down fuels include greater quantities of three-inch or larger limb wood that creates a large load of dead material on the forest floor. Crowning, spotting and torching of individual trees occur more frequently.

Fragmentation of conifer stands due to timber harvest, the relatively densely planted stands of conifers, and past site preparation and pre-commercial thinning activities contribute to variations in the spread and effects of fire across the landscape.

Fire Regime Current Condition for FMU 006

Fire Regime	Area	% of total area
I	1,789	28.98
II	113	1.83
III	4,236	68.62
V	35	0.57
	Total: 6,173	

Control problems and dominant topographic features.

Potential control problems:

- Moderate response time.
- Power lines, propane tanks and hazardous materials threats
- Blocked road access
- Extreme fire behavior
- Presence of logging slash
- Limited access to water for fire suppression

Dominant topographic features:

- Highly dissected mountains with perennial and intermittent streams characterize the area.
- Warm/dry/steep environment
- Dominated by an east/west ridge system

Firefighter and public safety considerations.

- Potential need for traffic control and possible evacuation coordination.
- Access in and out of area.
- Hazard tree safety.
- Minimal opportunities to utilize openings for safety zones.

Fire prevention and education opportunities.

- Maintain fire prevention signing in accordance with agency prevention plan.
- During high use periods, visitor contacts are essential.
- Active dissemination of fire restriction information and forest user contacts.
- Fire prevention awareness activities with local schools each spring.

Values to be protected (TES, Cultural, etc.)

100 Acre LSR's:

- During wildfire and prescribed fire activities, minimize damage to vegetation within 100-acre LSR's.
- Consider allowing trees and snags to burn out instead of falling them.
- Machinery such as tractors will only be used to control fires within the 100-acre LSR with appropriate line officer approval.

Wildlife Mitigation Measures

There are several Forest sensitive aquatic amphibian species (Torrent Salamander, Foothill Yellow-legged Frog, Oregon Spotted Frog) that inhabit all streams classes, ponds and wet areas. Additionally the Western Toad, Tailed, Red-legged, and Cascade Frogs are state sensitive species. These species are strongly associated with the aquatic environment in all life stages. In winter months adults may disperse some distance from stream habitat. However, during hot dry summer months they may be found in close proximity to streams, ponds or wet areas. The use of chemical retardant and foam is known to have adverse effects on these species, and should be avoided in all riparian reserves.

Northwest Pond Turtles inhabit class III, II and I streams and ponds. Impacts may occur from dipping or drafting water from ponds, especially when water levels become low and turtles are concentrated in a smaller area.

Protect known Northern Bald Eagle nest trees and roost sites. Disturbances adjacent to known American Peregrine Falcon nest sites may impacts nesting and rearing activities if those disturbance activities occur in the spring or early summer months. Protect 100 acre LSR's that are Northern Spotted Owl activity centers.

Aquatic Mitigation Measures

The following measures may be implemented within Wilderness Areas with appropriate line officer approval.

Fireline construction/aerial retardant use:

- Dozer line limited to slopes < 35% and Resource Advisor approval
- Dozer line in inventoried roadless areas requires Forest Supervisor approval
- No dozer line in riparian reserves or on rocky ground.
- Rehabilitate dozer line
- Don't build lengthy hand line parallel to streams within riparian reserves); instead, use creek as fire line. Don't buck in-stream logs.
- If possible, allow fire to back toward creek rather than lighting burnouts from edge of stream.
- No aerial retardant delivered within 300 feet of streams.

Mop up/water use:

- Don't use firefighting foam within 30 feet of streams or in wetlands.
- Store extra gas cans at least 20 feet from stream, and on spill pans or absorbent pads.
- Place water pumps and gas cans in spill pans or on absorbent pads when operating in and near creeks.
- Minimize falling snags in riparian reserves. If falling is required for safety reasons, fall into stream if possible.
- All foot valves have to be screened with a 3/32nd inch screen mesh.
- Don't take more than ½ flow of streams when pumping from small streams; use the largest water source possible.
- Off-forest tenders and engines need to have their tanks flushed and sterilized prior to deployment on the line to reduce the risk of transmission of disease, exotic snails or mussels.

Cultural Resources

Cultural resources on lands administered by the Federal Government are protected under federal mandate including the Archaeological Resources Protection Act of 1979, as amended, and the National Historic Preservation Act of 1966 (as amended 1990). Cultural resources affected by federally funded undertakings such as fire suppression activities require consultation with the Oregon State Historic Preservation Officer. Mitigation of the effects of suppression activities on cultural resources may be required. The archaeologist will treat wildland suppression activities as an undertaking as per section 106 of the National Historic Preservation Act (36 CFR 800.12(2)) and will follow the prescribed course of action.

Consultation with the appropriate American Indian Tribes and interested publics will be completed by the Forest Tribal Liaison. The Confederated Tribes of the Grand Rhonde Reservation, Confederated Tribes of the Siletz Reservation, and the Cow Creek Band of Umpqua Tribe of Indians will be contacted through each tribe's established cultural committee as soon as possible after the extended attack phase has been established. Consultation will seek to establish the opportunities for comment, procedures for objection and resolution of the objections.

Cultural resources may be discovered or are recorded within this FMU. Recorded cultural resources include cultural peeled ponderosa pine trees, lithic scatter sites, cairn or vision

quest sites and traditional use areas. The Umpqua National Forest archaeologist will provide specific guidance for avoidance of archaeological and historic resources, and the treatment of traditional resources in this FMU. The following guidelines will be followed during suppression and restoration activities:

- The resource advisor will have current information and GIS maps of all high probability locations for cultural resources and information pertaining to specific site locations.
- To ensure protection of sensitive site locations during the wildland fire briefings, specific locations for archaeological sites will be shared on a need-to-know basis. General locations will be provided during briefings.
- A qualified archaeologist shall be assigned as a resource advisor to any wildland fire with potential to impact areas with a high probability of archaeological resources.
- The Forest probability maps will be consulted and, if needed, proposed locations for fire lines, fire camps, helibases, staging areas, drop points, safety zones and all other similarly habitat-disturbing activities that have the potential to impact cultural resources will be inspected by an archaeologist prior to the activity. The archaeologist will seek opportunities to avoid or minimize impacts to archaeological sites.
- Archaeological sites should be avoided to the extent possible and the impacts to the sites should be minimized during fire suppression and restoration activities.
- Hand line construction and burning methods that minimally disturb the ground is preferred in high probability areas.
- Protection of historic structures may include wrapping structures with fire protective material, removing or clearing away flammable fuels, applying foam, installing sprinkler systems, constructing line and burning out, or using aerially delivered retardant or foam.
- Do not rehabilitate hand line or dozer line in or near lithic scatters or cairns without consulting the assigned archaeologist.
- If culturally peeled ponderosa have to be felled, the cut should be above or below the peeled scar.
- The resource advisor will be informed of all cultural resources located by field crews. Potential impacts will be recorded. This information will be made available to the Forest archaeologist as soon as possible.

Threatened, Endangered and Sensitive Plant Considerations

Fire suppression activities should avoid known sites of threatened, endangered, and sensitive (TES) plants. Fire suppression resources will receive guidance from each individual Ranger District.

- The resource advisor should have current information and GIS maps of all TES plant sites.
- Fire camps, helibases, staging areas, drop points, safety zones and all other habitat-disturbing activities should not be located at TES plant sites.
- A strategic network of such sites should be pre-identified in order to minimize inadvertent damage to TES plant sites during initial attack.

- Fire control lines should avoid TES plants sites and, to the degree practical, TES plant habitat (these areas often represent unique habitats as well).
- Water drafting sites should not be located at TES plant locations.
- Prescribed burning or fuels treatments adjacent to TES plant locations should not adversely alter microclimatic conditions at the TES plant site.
- TES plants inadvertently damaged during fire suppression should be restored as appropriate during fire rehabilitation.
- Water should be avoided at sites of TES lichens and bryophytes if possible because they are more sensitive to heat when hydrated than when dormant. Retardant should be avoided at these sites as well since these organisms are extremely sensitive to environmental pollutants.

Recreation

Forest recreation sites are depicted on the FMU maps. Maps of trails are available at Forest offices.

Proposed hazard fuels treatment or prescribed burns.

This information is available from Ranger Districts on request.

Other elements of the fire environment affecting management (smoke management).

Contribute to meeting National Ambient Air Quality Standards and Prevention of Significant Deterioration standards established under the federal clean Air Act (42 USC 7401 et seq.). Refer to the smoke management discussion in chapter four of this FMP.

Other special concern area.

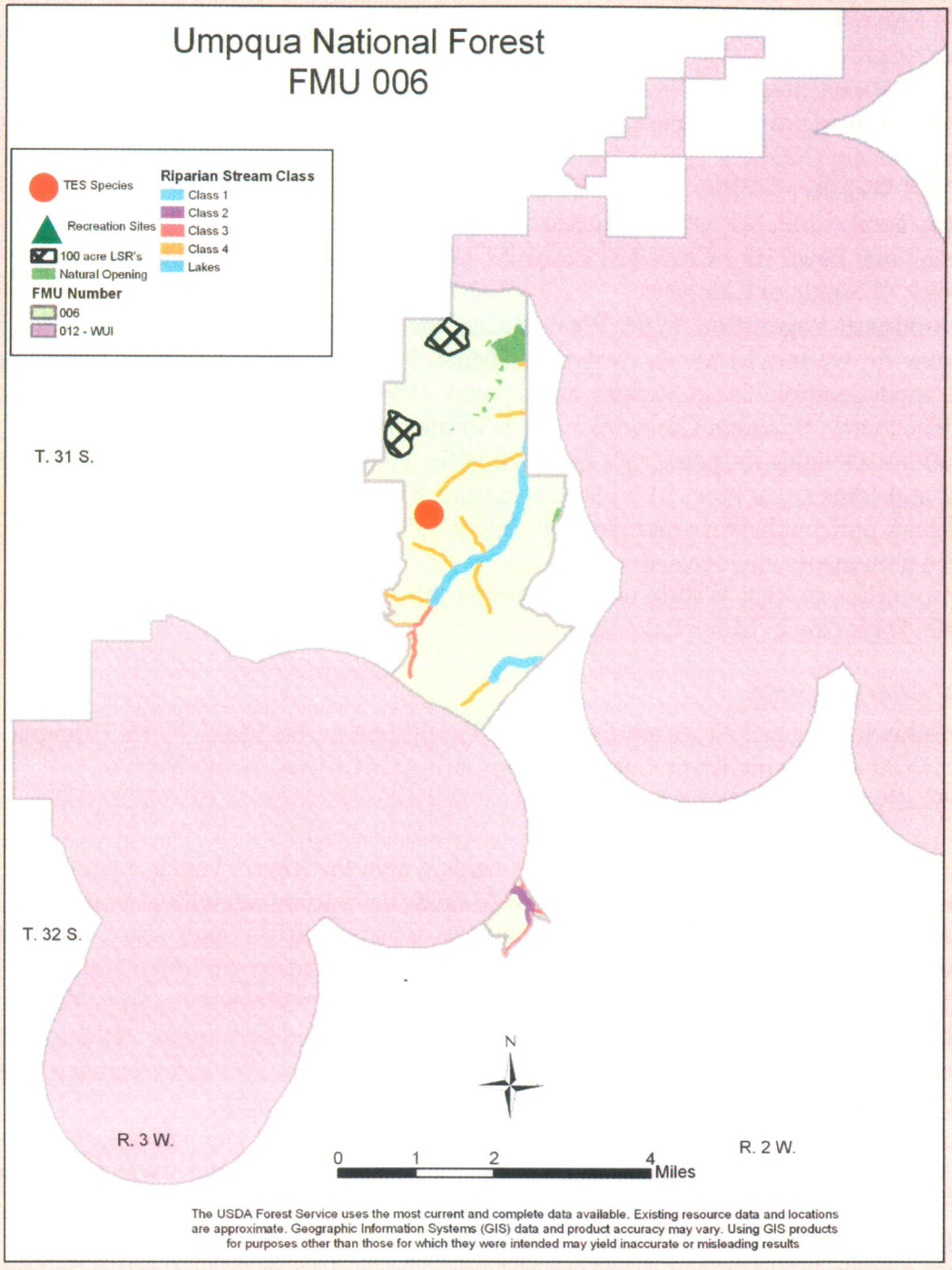
Prevention Measures for Noxious Weeds

- Avoid or remove sources of weed seed and propagules to prevent new weed infestations and the spread of existing weeds
- Ensure that rental equipment is free of weed seed and propagules before the Contracting Officer's Representative accepts it.
- Maintain a network of airports, helibases, camps and staging areas in a noxious weed-free condition.
- Vehicles and heavy equipment should be cleaned, with particular attention to the tires and undercarriage, before moving onto the Forest.
- Inspect and treat weeds that establish at equipment cleaning sites after fire incidents.
- Fuels management activities should avoid opening the canopy over, or disturbing the soil adjacent to, existing weed-infested areas unless the weed site is being managed.
- Roadside noxious weeds along major travel routes should be treated as long as weed treatment doesn't unnecessarily delay fire suppression activities.
- Avoid parking vehicles or machinery on weed infestations by flagging sites off as soon as practical.
- Avoid creating soil conditions that promote weed germination and establishment.
- Use suppression tactics that minimize suppression-induced disturbances to soil and vegetation.

- Avoid moving water buckets from weed-infested lakes or ponds to water bodies that are not infested until buckets can be cleaned of seeds and propagules. (There is no hazard associated with using waters infested with aquatic weeds on terrestrial sites).

Incorporate weed prevention practices into fire rehabilitation project design and implementation

- Evaluate weed status and risks in Burned Area Emergency Response (BAER) plans. When appropriate, apply for BAER and restoration funding.
- Seed and straw mulch to be used for burn rehabilitation should be free of weed seed. All seed should be noxious weed-free certified.
- Re-vegetation of disturbed sites, using locally adapted native species, should be considered if site-specific conditions suggest there is a high-risk of establishment or movement of noxious weeds.


Umpqua National Forest
FMU 006
TES Species
Recreation Sites
100 acre LSR's
Natural Opening
FMU Number
006
012 - WUI
Riparian Stream Class
Class 1
Class 2
Class 3
Class 4
Lakes
T. 31 S.
T. 32 S.
R. 3 W.
R. 2 W.
N
0 1 2 4 Miles
The USDA Forest Service uses the most current and complete data available. Existing resource data and locations are approximate. Geographic Information Systems (GIS) data and product accuracy may vary. Using GIS products for purposes other than those for which they were intended may yield inaccurate or misleading results